

**Embargo 00.01 Hrs  
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## **CHP: FORWARD NOT BACK!**

### **GREENPEACE AND ENERGY INDUSTRY CALL FOR ACTION**

Failure of the Government to act to deliver its own target for high efficiency Combined Heat and Power schemes is causing UK CO<sub>2</sub> emissions to rise – threatening the UK's target of a 20% cut in carbon by 2010.

- 1000 MW of potential new carbon reducing CHP capacity stalled
- £3 billion of investment frozen
- 60 MW of high efficiency CHP plant mothballed.

Officially described as *“the most cost-effective non-transport measure in the Climate Change Programme”*, Combined Heat and Power (CHP) schemes have put to work both electricity **and** the heat that is normally wasted, producing low cost energy for whole communities as well as on major industrial sites.

As the world's attention focuses on the UK's commitment to climate change, Greenpeace Director Stephen Tindale states:

*“If the UK is to maintain a credible leadership position on climate change then it must turn its warm words of support for CHP into practical action.*

*“Greenpeace supports the expansion of combined heat and power generation. All new housing developments and public and commercial buildings should be required to include CHP plants for heating, hot water and electricity. The Government should also fund changes to local electricity networks to encourage uptake of CHP.”*

CHPA Director David Green added:

*“Government in-action has turned a thriving industry, poised to make £3 billion of investment in low carbon CHP, into one which has seen no major orders for at least four years. This has led to a progressive loss of jobs and plant turn-offs.*

*“CHP policy within Government is bedevilled by inertia: to break out of this state of neglect, our report puts forward 50 recommendations for action to Government. We are confident the Government will want to respond positively, and get the UK back on track to the significant, low cost, carbon savings that CHP delivers.”*

**ENDS**

## Notes to Editors

1. The report *50 Ways to Boost CHP* is available to download from [www.chpa.co.uk](http://www.chpa.co.uk)
2. Combined Heat and Power (CHP) is the simultaneous generation of electricity and useful heat in a combined, highly efficient process.
3. *"The most cost-effective non-transport measure in the Climate Change Programme"* DEFRA, 2002.

Government's latest statistics show that every 1 MWe of CHP operating in the UK helps reduce carbon emissions by up to 900 tonnes every year. Current CHP capacity of approximately 5000 MWe is therefore already helping deliver savings of over 4 million tonnes of carbon annually, one of the largest single carbon reduction measures.

4. Government statistics show that CHP is at work at over 1,500 sites in the UK at present. The Government established a target of 10,000 MWe of Good Quality CHP by 2010 as part of the UK Climate Change Programme.
5. There was poor progress towards the CHP target this year, with the DTI's Digest of UK Energy Statistics 2004 (DUKES) showing that 4,879 MWe of CHP was operating in 2003.

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## RECOMMENDATIONS

***Government has allowed CHP to become the 'poor relation' of its climate change and energy policies.***

***Yet the Climate Change Review gives the Government a unique opportunity to make up for lost time.***

The Association welcomes Ministers commitments to consider the scope for new measures to boost the take-up of CHP. A range of options exists: all need to be acted upon. The introduction of a mixture of effective support mechanisms and policies to stimulate market demand would create a sea change in the prospects for CHP and with it the delivery of significant carbon saving measures.

### **Removing burdens, stimulating growth**

#### **1. Extending CHP's exemption under the CCL**

The Government should initiate, as soon as possible, its application to the European Commission for a further 10-year exemption for CHP from the Climate Change Levy (CCL) . This is a simple measure that would help reduce market uncertainty about the durability of the current hard-won CCL exemption.

#### **2. Introduce arrangements for CHP similar to those for renewables.**

The Government should use the powers it took in the 2000 Utilities Act to introduce arrangements for CHP similar to those for renewables. This would be the most effective way of addressing the market uncertainty the Government has created.

#### **3. Mitigating risk for CHP investors**

In the absence of such a measure, a market-based mechanism to guarantee spark spread, was proposed last year by Alan Whitehead MP. This addresses the market risk and uncertainty associated with the Government's delivery of its CHP policy,. It needs to be activated.

#### **4. Creating a CHP Sector under the NAP**

This modelling would then be key in helping to establish a *separate* CHP sector under Phase II of the EUETS

#### **5. Exempting CHP from Business Rates**

The 2009 rating evaluation of the power sector should deliver the Government's promise in 2000; to fully exempt CHP from business rates.

#### **6. Exempting CHP from the RO**

The Government should remove the cost burden that the Renewables Obligation (RO) places upon those consumers who use CHP-generated electricity in the wider energy market.

## **7. Fully rewarding CHP for its carbon saving under the EUETS**

The failure to ensure that CHP was properly rewarded for its carbon saving role in the formulation of the current National Allocation Plan (NAP) was a significant missed opportunity by Government. Several other Members States ensured that CHP's environmental benefits were rewarded through the scheme. With the creation of a distinct CHP sector the Government should ensure that a Phase II NAP delivers the positive boost to all types of CHP plant that Ministers were led to anticipate would occur.

## **8. Delivering on the emissions trading projects mechanism**

The Government have sidelined the UKETS 'projects mechanism' as a consequence of the introduction of the EUETS. This mechanism was stated by Government as a potential route for stimulating new CHP development. Any new projects mechanism developed must ensure that the Government delivers on its original commitment.

## **9. Reviewing NETA's effect on CHP**

The Government should deliver on its commitment<sup>1</sup> in last year's CHP Strategy and set up a joint review with the CHP industry of what further changes to NETA/BETTA are needed to reduce the market impact that the OFGEM/DTI/NETA/BETTA project has had on the CHP sector.

## **10. Recognising CHP's carbon saving potential**

The Association has recently presented Government with a study<sup>2</sup> it has commissioned reviewing the carbon saving potential of CHP. The Calculations for CHP carbon savings from existing schemes is well-supported through data accumulated through the Government's extensive CHPQA (Quality Assurance) programme. Government's estimates of *future CHP carbon savings*, however, is incorrect and, some might suggest, almost deliberately pitched on the particularly low side. This is a fundamental issue affecting all new CHP policy-making decisions. A new and more independent review is needed.

## **11. Rewarding CHP's power export**

CHP generates at the point of use. It can also provide power back to the supply companies right at the point of demand – this should make it highly valuable. However regressive market changes introduced by Government since 1997 has undervalued this power. Action is needed to ensure that where CHP plant supply local customers directly with power, and export any surplus, that they are adequately paid for any export electricity.

## **12. CHP should be made a fundamental element of Power Station Consents**

Planning guidelines for new power plant needs to ensure that developers have fully explored the potential for CHP as Ministers told to Parliament

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<sup>1</sup> para 1.29 *The Government's Strategy for CHP to 2010*, DEFRA, April 2004

<sup>2</sup> *Time to Take a Fresh Look at CHP* CHPA, May 2005

would be done. For the UK to move to the 60% cut in carbon emissions required, all new fossil-fuelled generating plant must operate as CHP

13. Electricity Supply Licenses should be restructured to encourage the development of community based CHP

**The electricity license exemption threshold should be raised and made less onerous in order to overcome the regulatory barriers for local communities wishing to take advantage of CHP.**

14. Restructuring the CEP

**The Community Energy Programme (CEP) should be further extended and restructured, delivering a greater focus on building a sustainable market for district energy.**

15. *Rewarding Low-Carbon heat*

***The Government should introduce an incentive mechanism which could act as a major stimulus to both biomass heat and heat produced from CHP plant.***

*Building and delivering the vision*

16. **Government Industry Taskforce established**

***A joint CHP industry/Government Taskforce (akin to the Renewable Energy Advisory Board) should be created as a lead-in to a range of measures to kick-start the CHP market***

17. *Committing support to CHP within Government*

***DEFRA needs to increase the staffing levels and expertise in its Sustainable Energy Policy section that work on CHP, thereby delivering the pro-active support that the industry had previously experienced throughout the high growth period of the 1990's.***

18. *Greater joined-up Government on CHP policy*

***DTI needs to fully embrace the Government's CHP target, and create a strategy to deliver those elements that clearly fall to it, such as licensing, energy market reform and so on.***

19. *Setting a longer term 20 GW CHP 2020 target*

***Government should set a target for 20 GW of CHP capacity by 2020 with a clear delivery Strategy and appropriate milestones of achievement. This level of CHP capacity is consistent with the lower end of Government's own analysis.***

20. *Setting CHP targets as PSAs*

***CHP is a critical element of the UK's Climate Change Programme, delivering some of the most significant and cost-effective carbon savings. As such, both the existing 2010 target and a future 2020 target should be established as Public Service Agreements (PSA) set out in DEFRA's aims and objectives as a key outcome-based target.***

**21. The treatment of CHP within the Climate Change Agreement (CCA) sectors needs to be reviewed and acted upon.**

Government stated at the outset that the creation of CCAs would provide a significant incentive for industry to invest in CHP. However, in some instances, it has been reported that CCAs have in fact proved to be a barrier to such investment. The scope for CHP in the CCA target sectors needs to be examined along with a coordinated approach by the relevant sections of DEFRA to overcome barriers identified.

**22. More effective energy modelling of CHP**

Given that the CHP industry is intensively monitored by DEFRA's CHPQA programme, the DTI should use this data, and other work where necessary, to model CHP separately in its future projections work. This analysis should be incorporated in the long awaited energy projections follow-up report to the Energy Paper 68.

**23. Clarifying CHP's role in the Climate Change Programme**

The current treatment of CHP within the Climate Change Programme (CCP) is confusing, with carbon savings from CHP almost 'lost' across the wide range of areas that it actively contributes to. The CCP should give a clearer and more authoritative indication of the role of CHP in terms of carbon savings delivered through the achievement of the 10 GW CHP target.

**24. Heat Map Development**

CHP Assessment work would help to support and build up the soon-to-be-released DTI/DEFRA Heat Maps. The scope of the Heat Maps should not remain static: all CHP study work commissioned would help to update and improve the maps to ensure they evolve as data becomes available.

**25. Strategy for the supply and use of heat.**

Building on this work, the Association supports the Royal Commission on Environmental Pollution's recommendation for Government to create a comprehensive strategy for the supply and use of heat.

**26. The Government's CHP target for its estate should be reviewed and extended to include i. heat *and* ii. the NHS**

Both of these areas are currently out of the scope of the current legislation. The Association has no knowledge as to how the level and scope of the current 15% electricity target within Government estate, contained within the *Sustainable Energy (CHP Provisions) Order 2003*, was determined. The CHP Provisions order needs to be re-visited and made more ambitious, as some departments have already achieved this level or can opt out due to purchasing 'green electricity'. Extending the obligation to include heat would ensure that more CHP plant could be introduced and used onsite. Further, NHS Estates (also see below) need to be engaged with in order to realise the significant potential for CHP which exists in this sector. This would help to ensure that Government's buildings could become the market building 'anchor loads' for major urban CHP schemes.

**27. Ensure ECAs support all elements of CHP systems**

Enhanced Capital Allowances should be extended to include all parts of CHP and district energy systems.

**28. Government need to lead by example**

A far more comprehensive study of energy efficiency saving measures, including the use of CHP, within the Government estate must be made as soon as possible. Government should lead by example. However, departments have still not published their energy efficiency reports, as required in the Government's 2004 *Energy Efficiency Action Plan*.

**29. Recognising the potential for MicroCHP**

MicroCHP has a significant role to play in the delivery of energy efficient heat and power in the residential sector. However, Government needs to work closely with the microCHP community to revise the current projections to determine what likely capacity is to be introduced to 2010 and beyond to 2020.

**30. Formulating an effective Microgeneration Strategy**

The Government's *Microgeneration Strategy*, which is to be finalised by April 2006, should ensure that the full potential of microCHP, and barriers to its uptake, are fully addressed and acted upon.

**31. Ensuring skilled workers are in place**

The Government and the Skills Council should ensure measures are in place to ensure sufficient programmes for training installers of microgeneration technologies.

**32. New Sustainable Energy Strategies for key housing growth areas should be created**

These should include a review of the potential for all forms of CHP. It has already been identified by Government commissioned research that these new developments will significantly contribute to carbon emissions in the period to 2020.

**33. Energy and Environmental Impact of Sustainable Communities identified**

The Environment Audit Committee have recently highlighted<sup>3</sup> the environmental failures, including increasing levels of CO<sub>2</sub>, of ODPM's Sustainable Communities Plan. Consequently, the potential for energy efficiency and CHP must be included within all of the new developments under the Sustainable Community Plan including the Thames Gateway, the London-Stansfeld-Cambridge corridor, Ashford, and Milton Keynes-South Midlands.

**34. CHP and community heating must feature in the new Sustainable Buildings Code**

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<sup>3</sup> *Housing: Building a Sustainable Future* Environment Audit Committee, House of Commons January 2005

The Government have highlighted the importance of the Code with respect to the environmental integrity of new housing developments. Therefore CHP and community heating must, along with other energy efficiency measures, be explored by ODPM and should adequately feature in the new Sustainable Buildings Code

### **35. CHP : Getting the message out**

A new high-level, confidence building CHP marketing programme should be initiated by Government in partnership with the industry. All companies identified as being suitable for the installation of CHP, through a new CHP potentials project, should be offered feasibility studies under the Carbon Trust's targeted programme. This would build on the Carbon Trust's existing CHP feasibility study programme, but would significantly expand the number of such studies undertaken.

### **36. Reinforcing the Trusts CHP policies**

The Energy White Paper mandated the Government's sponsored energy efficiency delivery bodies, the Carbon Trust and the Energy Saving Trust, reinforce delivery of its CHP target. The Association would urge DEFRA to ensure this occurs.

### **37. Recycling full CCL receipts**

All Climate Change Levy receipts should be recycled and invested into energy efficiency measures, including CHP, to those sectors that the CCL is placed upon.

### **38. Recycling full EUETS auction receipts**

Similarly any monies accrued from the auctioning of carbon allowances under the EUETS should be recycled to help fund business energy efficiency measures including CHP.

### **39. Reviewing other Government programmes**

The Decent Homes Standard needs to be reviewed to incorporate energy efficiency measures, including CHP. The Energy Efficiency Commitment (EEC) needs to be studied and enhanced to ensure it fully supports the deployment of CHP based schemes.

### **40. The Government should establish a dedicated Community Energy Unit**

This Unit should ensure strategic opportunities for the development of district energy schemes are taken, and a range of other community based sustainable energy technologies are stimulated and applied with direct local consumer participation.

### **41. Better Government procurement**

The Government should examine the scope for supporting major CHP schemes through a combination of 'smart purchasing' by its own agencies and local government. It should also take steps to create a guarantee scheme, akin to others it already has, in order to enable local authorities to confidently invest in major district energy schemes.

42. *The Treasury's "Invest to Save Budget" should be fully utilised to boost the potential for district energy.  
The Government is considering the case for a rolling-fund for investment in good energy efficiency projects in the public sector (announcement made in Budget 2005). This fund should prioritise CHP and district energy projects.*

#### *Assessment and monitoring*

43. *Assessing the UK's wider CHP potential  
UK CHP use has remained at approximately 6% of total electricity supplied for the past 10 years. This is well below the EU average and compares poorly with other Members States who have achieved levels as high as 40%. It is clear that across the range of technologies and generation sizes available, the UK has scarcely tapped the level of potential for CHP that exists. This is without consideration of further opportunities which will arise as new technology options become available: these could include biomass fired CHP, fuel cells, anaerobic digestion, greater demand for cooling (trigeneration) and geothermal based schemes. The Government needs to undertake comprehensive analysis, as it has for renewables, to determine the wider UK potential for CHP applications.*

#### **44. Driving Forward the CHP Strategy**

An annual update on the CHP Strategy should be produced, similar to the annual reviews of the Energy White Paper and the Energy Efficiency Action Plan.

#### **45. The Government should streamline its monitoring and assessment of CHP plant**

The Government should review the role and operation of its CHP quality assessment scheme (CHPQA) to ensure that its effectively obligatory nature is not placing disproportionate burdens on companies, particularly the many smaller players in the CHP sector.

#### **46. Regional CHP assessment studies should be initiated**

Similar to the analysis undertaken to determine the regional potential for renewables generation, undertaken by the DTI, studies on the potential for CHP and/or district heating should be commissioned through the Regional Development Agencies (RDAs), and should include the involvement of the Sustainable Energy Policy (SEPN) Regional Group.

**47. Identifying the potential for CHP in the capital**

London has some of the most significant potential for CHP in the public and commercial sectors. The Mayor's London Energy Strategy calls for a doubling in the use of CHP in London. The Government should build on this commitment and undertake a special review of the action needed to secure the CHP potential in the capital.

**48. The potential for CHP should be examined in new PFI developments.**

According to the Treasury, PFI has already delivered 600 new operational public facilities, mainly schools and hospitals but also police stations and prisons. Many of the sites would be suitable for CHP, however, in practice; little new CHP capacity has been installed. Future plans for PFI projects are significant: for example, all new secondary schools in England are to be rebuilt over the next 10 – 15 years, at least half via the PFI route, with an annual investment of £2bn over that period. Government must ensure that energy efficiency measures are a cornerstone of any new PFI project. Government must also ensure that all new PFI projects must explore the suitability of CHP.

**49. A comprehensive study on the potential for CHP in the health sector and the barriers to the uptake of CHP plant should be undertaken.**

Included within this study should be work to identify further support measures for NHS Energy Managers to undertake energy efficiency improvements. The recent NHS low-carbon<sup>4</sup> guide contains scant information for NHS energy managers on CHP and its potential.

**50. More open Government monitoring of carbon emissions**

Government should publish annually a detailed report highlighting the progress of its carbon reduction policies and their effectiveness in working to reduce UK CO<sub>2</sub> emissions.

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<sup>4</sup> *Carbon/Energy Management - best practice advice for the NHS in England on meeting the mandatory carbon/energy targets* NHS Estates 2004